

	INSPECTION FORM POWER CABLE, 4160V		Page 1 of 3
			Cable ID:
Project	Facility:	Project Name:	
	Area :	Bid Opportunity:	

Cable Data	Source:		Dest. / Load:	
	Manufacturer:		Type:	Conductor: ☐ Copper ☐ Aluminum
	No. of Conductors:	Size: ☐ AWG ☐ MCM	Length: m	☐ Measured ☐ Previous Data ☐ Jacket Markings ☐ TDR
	Rated Voltage: V	Operating Voltage: V	Date Installed:	
	Installation: ☐ Cable Tray ☐ EMT ☐ Alum. Conduit ☐ Direct Buried ☐ Strapped ☐ Steel Conduit ☐ PVC Conduit ☐ Underground Duct Other:			

Visual Inspection	Physical Damage on Exposed Ends: ☐ Yes ☐ No	Cable Identification Tag Installed: ☐ Yes ☐ No
	Visual Signs of Overheating/Corona: ☐ Yes ☐ No	Cable Supported Appropriately: ☐ Yes ☐ No
	Damage to Splices/Terminations: ☐ Yes ☐ No	Shield Grounded: ☐ Yes ☐ No
	Bend Radius Acceptable: ☐ Yes ☐ No	Comments:

Insulation Resistance Test	Test Preparation: Source: ☐ Disconnected ☐ Connected with Source Isolated		Cable Dest. / Load: ☐ Disconnected ☐ Connected with Load Isolated		Note: Approval of City's Representative is required, prior to leaving cables connected during the test.	
	Cable Temperature: °C Temperature Correction Factor for 20°C:					
	Test Voltage	Reading	Insulation Resistance (MΩ)			Test Summary ☐ Test Passed ☐ Test Inconclusive Further Investigation Required. ☐ Test Failed
			A-GND	B-GND	C-GND	
			Corrected to 20°C			
	Comments:					

INSPECTION FORM 4160V POWER CABLE

Cable ID:

High Potential Very Low Frequency (VLF) Test	Test Preparation:				Source: ☐ Disconnected ☐ Connected with Source Isolated	Cable Dest. / Load: ☐ Disconnected ☐ Connected with Load Isolated	Note: Approval of City's Representative is required, prior to leaving cables connected during the test.	
	Frequency: 0.1 Hz		Waveform: sinusoidal		Ground all conductors not under test for each reading.			
	Test Voltage (RMS)	Elapsed Time (min)	Peak Leakage Current (uA)			Test Summary		
			A-GND	B-GND	C-GND	☐ Test Passed ☐ Test Inconclusive Further Investigation Required. ☐ Test Failed		
	7000V	0						
	7000V	1						
	7000V	2						
	7000V	3						
	7000V	4						
	7000V	5						
	7000V	6						
	7000V	7						
	7000V	8						
	7000V	9						
	7000V	10						
	7000V	11						
7000V	12							
7000V	13							
7000V	14							
7000V	15							
Comments:								

	INSPECTION FORM 4160V POWER CABLE	Page 3 of 3
		Cable ID:

Dissipation Factor (Tangent Delta) Test	Frequency: 0.1 Hz		Waveform: sinusoidal							
	Test Voltage (RMS)	A			B			C		
		Tan Delta	Capacitance (nF)	Current (µA)	Tan Delta	Capacitance (nF)	Current (µA)	Tan Delta	Capacitance (nF)	Current (µA)
	2400V									
	4800V									
	Difference									
	Test Summary ☐ Test Passed ☐ Test Inconclusive Further Investigation Required. ☐ Test Failed		Comments:							

Connection Resistance	Termination	Connection Resistance (µΩ) - As Left			Torque Check
		A	B	C	
	Source				☐ OK
	Dest. / Load				☐ OK
	Comments:				

Final Analysis	Cable Returned to Service:	☐ Yes	☐ No	Comments:
	Monitoring / Further Inspection Required:	☐ Yes	☐ No	
	Repair / Replacement Required:	☐ Yes	☐ No	

	Company	Name	Signature	Date (yyyy/mm/dd)
Performed By				
Checked By				

Note: The person performing the check is responsible for ensuring that the data is transcribed from the handwritten form correctly, and that the analysis results are correct.

	INSPECTION FORM FUSED DISCONNECT SWITCH, 600V	Page 1 of 2
		ID:

Project	Facility:	Project Name:
	Area :	Bid Opportunity:

Disconnect Data	Manufacturer:		Model:	
	Rated Voltage: V	Current Rating: A	Interrupting Rating: A	

Fuse Data	Manufacturer:		Type:	Cat. #:
	Rated Voltage: V	Current Rating: A	Holder:	

Visual Inspection / Cleaning	Identification Tag Installed: ☐ Yes ☐ No		Visual Signs of Overheating: ☐ Yes ☐ No	
	Cleanliness (As Found): ☐ Good ☐ Acceptable ☐ Poor		Support Insulators: ☐ Good ☐ Acceptable ☐ Poor	
	Connections: ☐ Good ☐ Acceptable ☐ Poor		Blade Condition: ☐ Good ☐ Acceptable ☐ Poor	
	Ground Connection: ☐ Good ☐ Acceptable ☐ Poor		Verify Blade Mechanical Operation: ☐ Good ☐ Acceptable ☐ Poor	
	Door Mechanical: ☐ Good ☐ Acceptable ☐ Poor		Fuse Holder Support and Contact Integrity: ☐ Good ☐ Acceptable ☐ Poor	
	Fit Plumb & Square: ☐ Yes ☐ No		Unit Cleaned: ☐ Yes	Unit Lubricated: ☐ Yes
	Cables Supported Appropriately: ☐ Yes ☐ No		Other:	

Switchblade Resistance	Resistance ($\mu\Omega$) (As Left)			Test Summary ☐ Test Passed ☐ Test Inconclusive Further Investigation Required. ☐ Test Failed
	A	B	C	
	Comments:			

Fuse Resistance	Resistance ($\mu\Omega$) (As Left)			Test Summary ☐ Test Passed ☐ Test Inconclusive Further Investigation Required. ☐ Test Failed
	A	B	C	
	Comments:			

Insulation Resistance Test	Test Preparation: Source: ☐ Isolated Cable Dest. / Load: ☐ Disconnected Disconnect: ☐ Open ☐ Connected with Load Isolated Note: Approval of City's Representative is required, prior to leaving cables connected during the test.						
	Test	Voltage	Insulation Resistance (MΩ)			Ground all phases not under test!	
			A	B	C		
	Disconnect Line To GND	1000 VDC				Test Summary ☐ Test Passed ☐ Test Inconclusive Further Investigation Required. ☐ Test Failed	
	Disconnect Load To GND	1000 VDC					
	Disconnect Line to Load	1000 VDC					
Comments:							

Final Analysis	Returned to Service: ☐ Yes ☐ No	Comments:
	Monitoring / Further Inspection Required: ☐ Yes ☐ No	
	Repair / Replacement Required: ☐ Yes ☐ No	

	Company	Name	Signature	Date (yyyy/mm/dd)
Performed By				
Checked By				

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	INSPECTION FORM GROUNDING/BONDING CONNECTION RESISTANCE		Page 1 of 1
			Area:
Project	Facility:	Project Name:	
	Area :	Bid Opportunity:	

Resistance Checks (Ductor Test)	Point A	Point B	Resistance (mΩ)	Acceptable
				☐ Yes ☐ No ☐ Inconclusive
				☐ Yes ☐ No ☐ Inconclusive
				☐ Yes ☐ No ☐ Inconclusive
				☐ Yes ☐ No ☐ Inconclusive
				☐ Yes ☐ No ☐ Inconclusive
				☐ Yes ☐ No ☐ Inconclusive
				☐ Yes ☐ No ☐ Inconclusive
				☐ Yes ☐ No ☐ Inconclusive
				☐ Yes ☐ No ☐ Inconclusive
				☐ Yes ☐ No ☐ Inconclusive
				☐ Yes ☐ No ☐ Inconclusive
				☐ Yes ☐ No ☐ Inconclusive
	Comments:			

Final Analysis	Monitoring / Inspection Required: ☐ Yes ☐ No	Comments:
	Repair / Replacement Required: ☐ Yes ☐ No	

	Company	Name	Signature	Date (yyyy/mm/dd)
Performed By				
Checked By				

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	INSPECTION FORM GROUNDING SYSTEM		Page 1 of 3
			ID:
Project	Facility:	Project Name:	
	Area :	Bid Opportunity:	

Visual Inspection	Connection to Ground Electrode is Visible: ☐ Yes ☐ No	Facility Contains a Main Ground Bus: ☐ Yes ☐ No
	Connecting Conductor: Size: Qty:	Torque Ground Connections: ☐ Yes ☐ No
	Visual signs of Corrosion: ☐ Yes ☐ No	
	Soil Type:	Soil Condition: ☐ Dry ☐ Damp ☐ Wet
	Comments:	

Fall Of Potential Test #1	Date of Test:		Time of Test:			
	Weather and Temperature:		Terrain:			
	Grounding System Connection Point:		UTM GPS Coordinate:	E	N	
	Current Probe Injection Point:		UTM GPS Coordinate:	E	N	
	Test Conditions:			Test Layout:		
	Voltage Probe Distance (meters)	UTM GPS Coordinate:	Test Current (mA)	Test Voltage (mV)	Resistance @ Hz (Ω)	Resistance @ Hz (Ω)
		E N				
		E N				
		E N				
		E N				
		E N				
		E N				
		E N				
		E N				
		E N				
Comments:						

	INSPECTION FORM GROUNDING SYSTEM	Page 2 of 3
		ID:

Fall Of Potential Test #2	Date of Test:		Time of Test:			
	Weather and Temperature:		Terrain:			
	Grounding System Connection Point:		UTM GPS Coordinate:		E	N
	Current Probe Injection Point:		UTM GPS Coordinate:		E	N
	Test Conditions:			Test Layout:		
	Voltage Probe Distance (meters)	UTM GPS Coordinate:	Test Current (mA)	Test Voltage (mV)	Resistance @ Hz (Ω)	Resistance @ Hz (Ω)
		E N				
		E N				
		E N				
		E N				
		E N				
		E N				
		E N				
Comments:						

	INSPECTION FORM GROUNDING SYSTEM	Page 3 of 3
		ID:

Resistance Checks (Ductor Test)	Point A	Point B	Resistance (mΩ)	Test Summary ☐ Test Passed ☐ Test Inconclusive Further Investigation Required. ☐ Test Failed
	Facility Ground Electrode	Main Ground Bus		
	Facility Ground Electrode	4160V Switchgear GND Bus		
	Facility Ground Electrode	System Neutral		
	Facility Ground Electrode	600V Switchgear GND Bus		
	Facility Ground Electrode	MCC : GND Bus		
	Facility Ground Electrode	MCC : GND Bus		
	Facility Ground Electrode	Other :		
	Facility Ground Electrode	Other :		
	Facility Ground Electrode	Other :		
	Comments:			

Final Analysis	Monitoring / Inspection Required: ☐ Yes ☐ No	Comments:
	Repair / Replacement Required: ☐ Yes ☐ No	

	Company	Name	Signature	Date (yyyy/mm/dd)
Performed By				
Checked By				

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